

FIG. 1

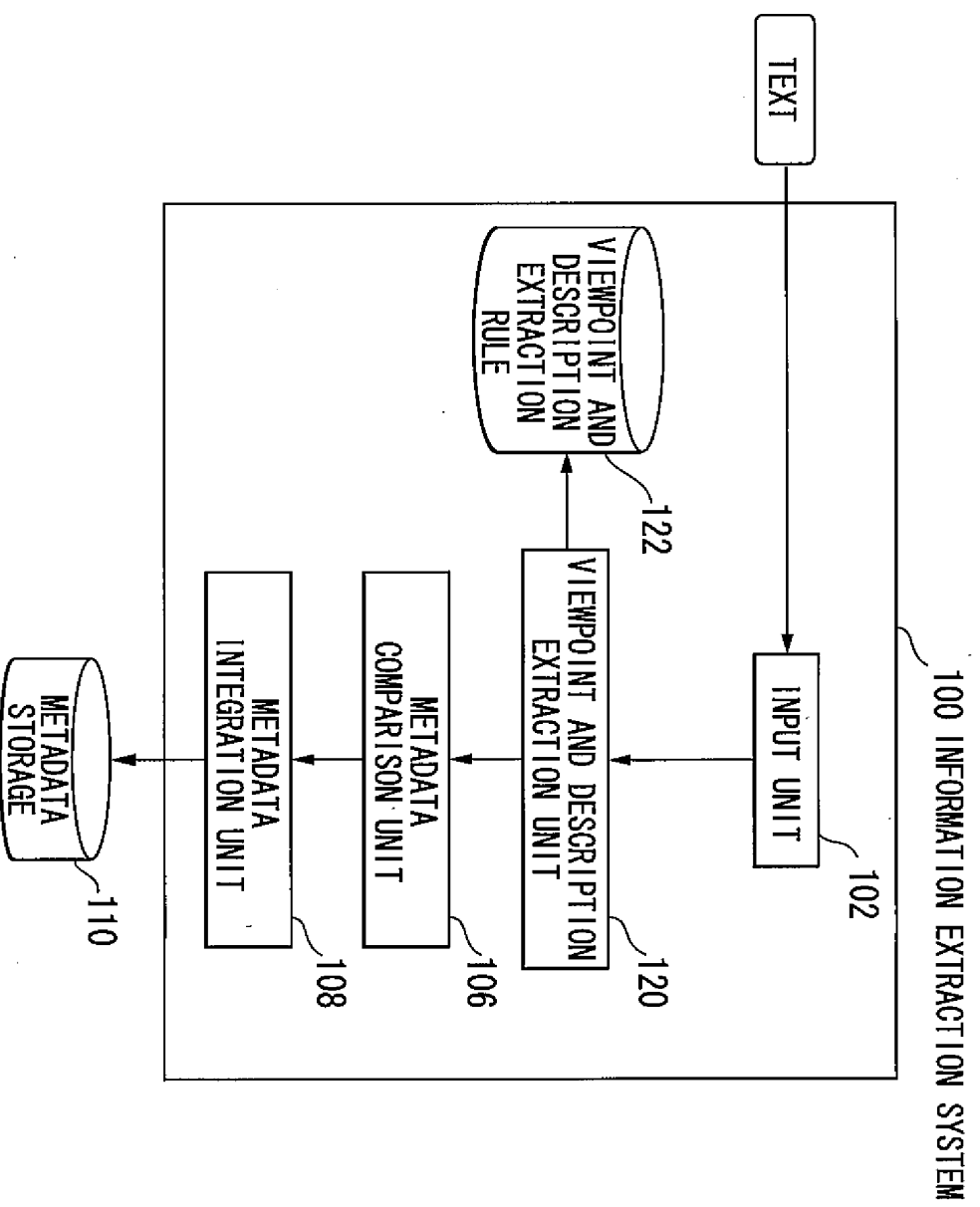


FIG. 2A

INPUT TEXT EXAMPLE

TEXT 1	<p>A sha no kogata bag A20 <u>hā</u> <u>kaikou</u> <u>bu</u> <u>ga</u> <u>30cm</u> <u>to</u> <u>kanari</u> <u>ookii</u>. <u>fasuna-no kaihei</u> <u>mo</u> <u>open top</u> <u>30cm</u> <u>rather wide</u> <u>zipping and unzipping</u> <u>nameraka da</u>. <u>kawa no kanshoku</u> <u>wa</u> <u>shittori</u> <u>to</u> <u>yasashii</u>. <u>smooth</u> <u>feel of leather</u> <u>moist</u> <u>soft</u></p> <p>(A20 is a small bag made by A company. The open top is rather wide, measuring 30 cm across. And, it is zipped and unzipped smoothly. The leather gives moist and soft feel.)</p>
TEXT 2	<p>A20 <u>wa</u> <u>kawa</u> <u>no</u> <u>tezawari</u> <u>ga</u> <u>odoroku</u> <u>hodo</u> <u>nameraka</u> <u>da</u>. <u>iroai</u> <u>mo</u> <u>shittori</u> <u>to</u> <u>yasashii</u>. <u>touch of leather</u> <u>ultra smooth</u> <u>coloring</u> <u>moist</u> <u>soft</u></p> <p>(A20 is made in ultra smooth leather. The leather is dyed in moist and soft color.)</p>

FIG. 2B

VIEWPOINT AND DESCRIPTION IDENTIFICATION EXAMPLE	
TEXT 1	A sha no kogata bag A20 wa<VIEW1>kaikou bu</VIEW1> ga <DESC1a> 30cm</DESC1a>to</DESC1b> kanari ookii </DESC1b>. <VIEW2>fasuna-no kaihei</VIEW2> mo <DESC2>nameraka da</DESC2>. <VIEW3>kawa no kanshoku</VIEW3>wa<DESC3>shittori to yasashii</DESC3>.
TEXT 2	A20 wa<VIEW1>kawa no tezawari</VIEW1> ga <DESC1>odoroku hodo nameraka da</DESC1>. <VIEW2>iroai</VIEW2> mo <DESC2>shittori to yasashii</DESC2>.

FIG. 2C

ELEMENT METADATA EXTRACTION RESULT		
VIEWPOINT	DESCRIPTION	ELEMENT METADATA ID
kaikoubu(open top)	30cm	1-1a
	kanari ookii (rather wide)	1-1b
fasuna-no kaihei (zipping and unzipping)	nameraka da (smooth)	1-2
kawa no kanshoku (feel of leather)	shittori to yasasii (moist and soft)	1-3
kawa no tezawari (touch of leather)	odoroku hodo nameraka da (ultora smooth)	2-1
iroai(coloring)	shittori to yasasii (moist and soft)	2-2

FIG. 3A

VIEWPOINT/DESCRIPTION EXTRACTION RULE EXAMPLE

RULE	PATTERN	VIEWPOINT	DESCRIPTION
1	ha´([KANJI/HIRAGANA STRING 1])[`ga´`mo´] ({ALPHANUMERIC STRING 1})to´ ([KANJI/HIRAGANA STRING 1]{ADJECTIVE ENDING 1})	\$1	\$2 \$3
2	ha´([KANJI/HIRAGANA STRING 1])[`ga´`mo´] ([KANJI/HIRAGANA STRING 1]{ADJECTIVAL NOUN ENDING 1})	\$1	\$2
3	ha´([KANJI/HIRAGANA STRING 1])[`ga´`mo´] ([KANJI/HIRAGANA STRING 1]{ADJECTIVE ENDING 1})	\$1	\$2

EXPLANATION OF NOTATION OF RULE

[]: ANY IN TABLE
+: REPETITION OF PATTERN ELEMENT IMMEDIATELY BEFORE ONCE OR MORE TIMES
(): BACKWARD REFERENCE (SEQUENTIALLY REFERRED BY \$(INTEGER))
\$(INTEGER): VARIABLE (CHARACTER STRING MATCHED WITH[INTEGER]TH PART PARANTHISED BY “ () ” IN PATTERN

FIG. 3B

VIEWPOINT/DESCRIPTION EXTRACTION RULE COMPONENT DEFINITION EXAMPLE

COMPONENT NAME	DEFINITION
KANJI/HIRAGANA STRING 1	string composed by any kanji/hiragana
ALPHANUMERIC STRING 1	[0-9A-Z]+
ADJECTIVAL NOUN ENDING 1	`daro´, `da´, `de´, `dat´, `ni´, `na´
ADJECTIVE ENDING 1	`ku´ `ka´ `u´ `yuu´ `i´

FIG. 4

METADATA INTEGRATION RESULT

VIEWPOINT	DESCRIPTION	VIEWPOINT/DESCRIPTION PAIR ID
kaikoubu (open top)	30cm	1-1a
	kanari ookii (rather wide)	1-1b
fāsuna-no kaihei (zipping and unzipping)	nameraka da (smooth)	1-2
kawa no kanshoku (feel of leather)	shittori to yasasii (moist and soft)	1-3
	odoroku hodo nameraka da (ultora smooth)	2-1
iroai (coloring)	shittori to yasasii (moist and soft)	2-2

FIG. 5

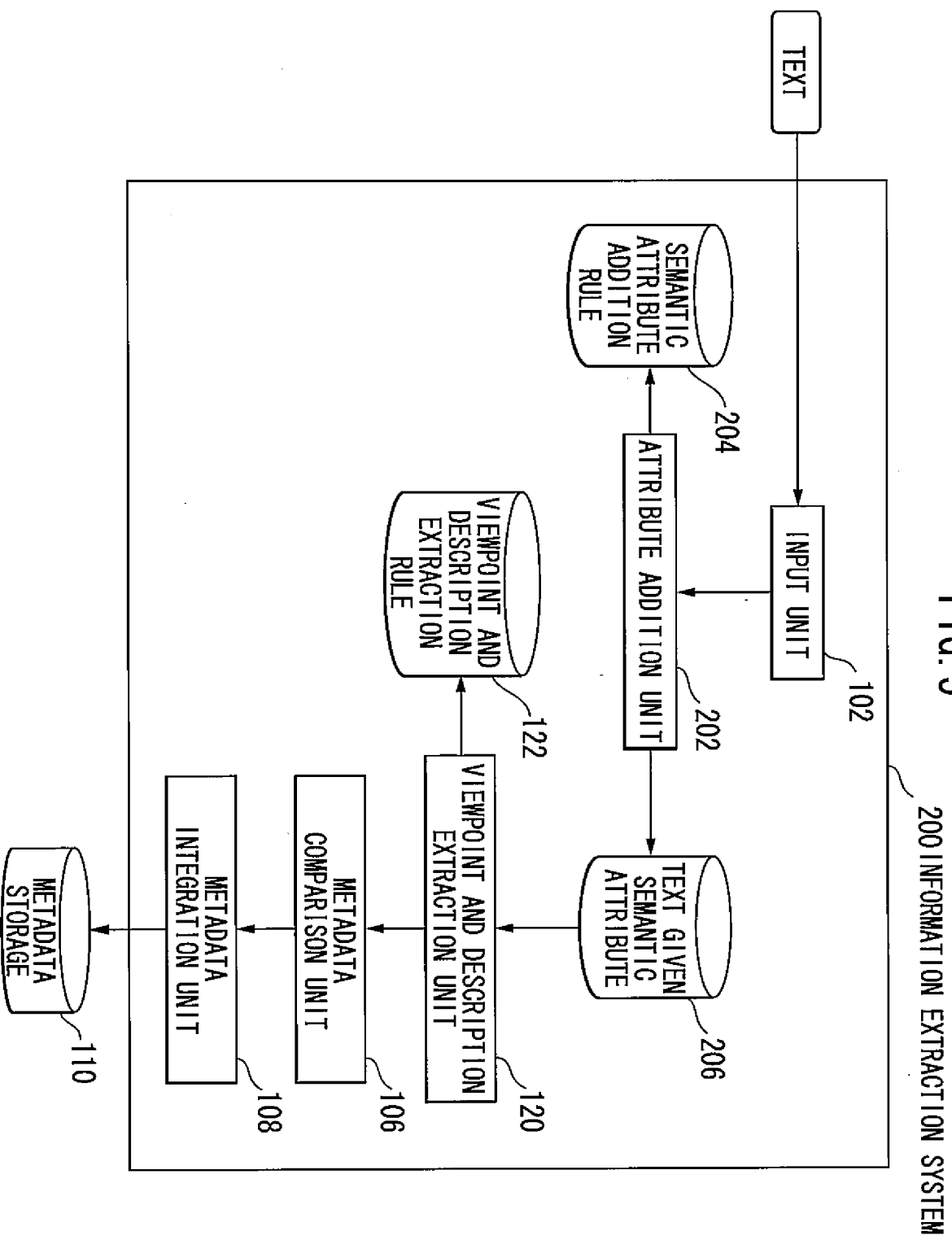


FIG. 6A

TEXT EXAMPLE

TEXT 1	<u>A sha</u> no <u>bag A200</u> ha <u>youryou</u> ga <u>20 rittoru</u> to ookii. A company bag A200 capacity 20liters (The capacity of the bag A200 made by A company is as large as 20 liters.)
TEXT 2	<u>bag A200</u> ha <u>youryou</u> ga <u>hujubunda</u> to omou. bag A200 capacity (I think the capacity of the bag A200 is insufficient.)

FIG. 6B

SEMANTIC ATTRIBUTE ADDITION EXAMPLE

TEXT 1	<ORGANIZATION type=company>A sha</ORGANIZATION> no <PROD_TYPE>bag</PROD_TYPE><PROD_NAME>A200 <PROD_NAME>ha<QUANT_TYPE>youryou</QUANT_TYPE>ga<QUANT unit=1, val=20> 20rittoru</QUANT> to ookii.
TEXT 2	<PROD_TYPE>bag</PROD_TYPE><PROD_NAME>A-200</PROD_NAME> ha<QUANT_TYPE>youryou</QUANT_TYPE> ga hujubunda to omou.

FIG. 7A

SEMANTIC ATTRIBUTE ADDITION RULE EXAMPLE

RULE	PATTERN	OBJECT PART	SEMANTIC ATTRIBUTE	
			SEMANTIC CLASSIFICATION	DETAILED INFORMATION
1	(([NUMERIC STRING] {QUANTITY UNIT}))	\$1 \$2	QUANT	• unit: EXPRESSION IN UNITS OF QUANTITY • val: VALUE ACQUIRED BY NORMALIZING NUMERIC EXPRESSION
2	(([QUANTITY CLASSIFICATION]))	\$1	QUANT_TYPE	
3	(([ALPHABETIC STRING] {EXPRESSION IMMEDIATELY FOLLOWING COMPANY NAME}))	\$1	ORGANIZATION	• type: company
4	((PRODUCT CLASSIFICATION NAME))	\$1	PROD_TYPE	
5	(([PRODUCT CLASSIFICATION NAME] [ALPHANUMERIC SYMBOL STRING 1]))	\$1	PROD_NAME	

FIG. 7B

SEMANTIC ATTRIBUTE ADDITION RULE COMPONENT DEFINITION EXAMPLE

COMPONENT NAME	DEFINITION
EXPRESSION IMMEDIATELY FOLLOWING COMPANY NAME	sha(company)
QUANTITY CLASSIFICATION	youryou(capacity)
QUANTITY UNIT	`liter`, `meter`, `gram`
PRODUCT CLASSIFICATION NAME	`bag`, `shoes`, `bousi(hat)`
NUMERIC STRING	[0-9] +
ALPHABETIC STRING	[A-Z] +
ALPHANUMERIC SYMBOL STRING 1	[-0-9A-z] +

FIG. 8A

EXAMPLE OF TEXT GIVEN SEMANTIC ATTRIBUTE

TEXT 1	<ORGANIZATION type=company>A sha</ORGANIZATION> no <PROD_TYPE>bag</PROD_TYPE><PROD_NAME>A200</PROD_NAME>ha<QUANT_TYPE>youryou</QUANT_TYPE>ga<QUANT unit=1, val=20>20rittoru</QUANT> to ookii.
TEXT 2	<PROD_TYPE>bag</PROD_TYPE><PROD_NAME>A-200<PROD_NAME>ha<QUANT_TYPE>youryou</QUANT_TYPE> ga hujuubunda to omou.

FIG. 8B

VIEWPOINT AND DESCRIPTION IDENTIFICATION EXAMPLE

TEXT 1	<DESC1><ORGANIZATION type=company>A sha</ORGANIZATION></DESC1> no <DESC2><PROD_TYPE>bag</PROD_TYPE></DESC2><DESC3><PROD_NAME>A200</PROD_NAME></DESC3>ha<VIEW4><QUANT_TYPE>youryou</QUANT_TYPE></VIEW4>ga<DESC4a><QUANT unit=1, val=20>20 rittoru</QUANT></DESC4a> to <DESC4b>ookii</DESC4b>.
TEXT 2	<DESC1><PROD_TYPE>bag</PROD_TYPE></DESC1><DESC2><PROD_NAME>A-200</PROD_NAME>ha<QUANT_TYPE>youryou</QUANT_TYPE></VIEW3> ga <DESC3> hujuubunda to omou.

VIEWPOINT/DESCRIPTION EXTRACTION RULE EXAMPLE FIG. 9A

RULE	PATTERN	VIEWPOINT	DESCRIPTION
1	<QUANT_TYPE>{[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]}</QUANT_TYPE>[GA OR HA]<QUANT>{[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]}</QUANT>TO ({KANJI/HIRAGANA STRING 1} [ADJECTIVE ENDING 1])	\$1	\$2 \$3
2	<QUANT_TYPE>{[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]}</QUANT_TYPE>[GA OR HA]({ ({KANJI/HIRAGANA STRING} [ADJECTIVE ENDING 1])	\$1	\$2
3	{[ARBITRARY CHARACTER EXCEPT TAG END SYMBOL]}*{[SEMANTIC ATTRIBUTE 1]}>/[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]>><[SEMANTIC ATTRIBUTE]>	ARIAS OF SEMANTIC ATTRIBUTE OF \$1	\$2
4	{[END TAG]<{[SEMANTIC ATTRIBUTE 1]}><{[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]}></[SEMANTIC ATTRIBUTE 1]}>	ARIAS OF SEMANTIC ATTRIBUTE OF \$1	\$2

+:REPEATING PATTERN ELEMENT IMMEDIATELY BEFORE 1 TIMES OR MORE
*:REPEATING PATTERN ELEMENT IMMEDIATELY BEFORE 0 TIMES OR MORE

FIG. 9B
VIEWPOINT/DESCRIPTION EXTRACTION RULE COMPONENT DEFINITION EXAMPLE

COMPONENT NAME	DEFINITION
ADJECTIVE VERB ENDING 1	`daro`,`da`,`de`,`da`,`ni`,`na`
ADJECTIVE ENDING 1	`ku`,`ka`,`u`,`yuu`,`i`
SEMANTIC ATTRIBUTE 1	`ORGANIZATION`,`ORGANIZATION type company`,`PROD_TYPE`,`PROD_NAME`,`PERSON`,`DATE`,`TIME`,`PERIOD`,`...
ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL 1	[`<`]+
ARBITRARY CHARACTER STRING EXCEPT TAG END SYMBOL 1	[`]`]
END TAG	</[`]`]+>

FIG. 10

ELEMENT METADATA EXTRACTION RESULT

VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		ELEMENT METADATA ID
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION	
COMPANY NAME	A sha	ORGANIZATION	type=company	1-1
PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-2
PRODUCT NAME	A-200	PROD_NAME		1-3
CAPACITY		QUANT_TYPE		-
		20 rittoru	unit=1, val=20	1-4a
		ookii		1-4b
PRODUCT CLASSIFICATION	bag	PROD_TYPE		2-1
PRODUCT NAME	A-200	PROD_NAME		2-2
CAPACITY		QUANT_TYPE		2-3
		hujubun da		

FIG. 11

METADATA INTEGRATION RESULT

VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		ELEMENT METADATA ID
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION	
COMPANY NAME	A sha	ORGANIZATION	type=company	1-1
PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-2 2-1
PRODUCT NAME	A-200	PROD_NAME		1-3 2-2
CAPACITY		QUANT_TYPE		-
	20 rittoru	QUANT	unit=1, val=20	1-4a
	ooki i			1-4b
	hujjubun-da			2-3

FIG. 12

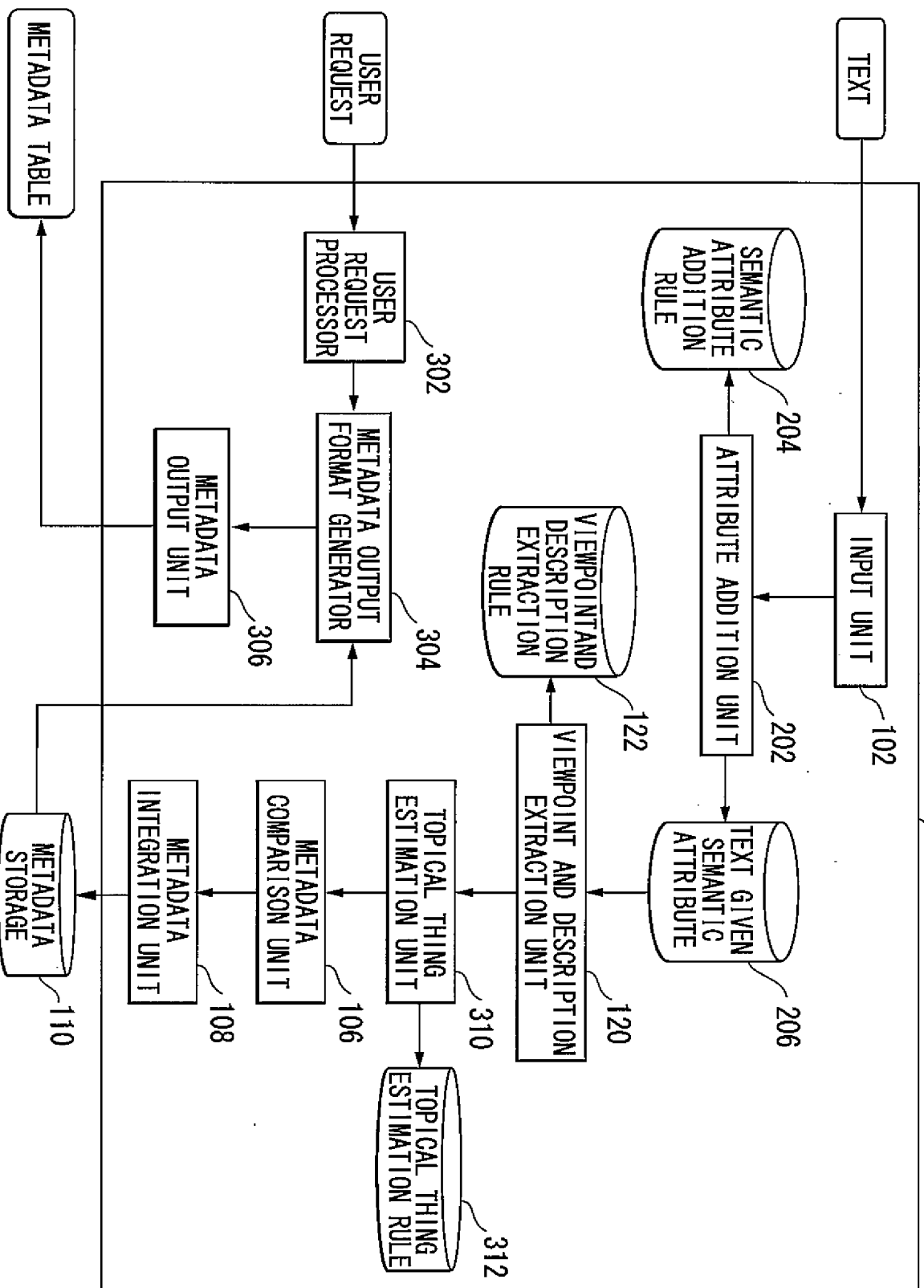


FIG. 13A

VIEWPOINT AND DESCRIPTION IDENTIFICATION EXAMPLE	
TEXT 1	<p> <DESC1><PROD-TYPE> bag <PROD-TYPE></DESC1> <PROD-NAME>A200</PROD-NAME></DESC2> <QUANT-TYPE>youryou </QUANT-TYPE> ga <DESC3> hujuvunda </DESC3> shi, <DESC4> <PROD-TYPE> bag </PROD-TYPE></DESC4> <DESC5> <PROD-NAME>A300 </PROD-NAME></DESC5> ha <VIEW6> <QUANT-TYPE> youryou NAME></DESC5> ha <VIEW6> <QUANT-TYPE> youryou </VIEW7>. </p>
TEXT 2	<p> <DESC1><PROD-TYPE> bag </PROD-TYPE></DESC1> <DESC2><PROD-NAME>A200</PROD-NAME></DESC2> ha <VIEW3> <QUANT-TYPE> youryou </QUANT-TYPE> </VIEW3> ga <DESC3> <QUANT unit=1 val=20> 20ritobu </VIEW3> de, <DESC4> <PROD-TYPE> bag </PROD-TYPE></DESC4> </DESC5> <PROD-NAME> A300 </PROD-NAME></DESC5> no <VIEW6> <QUANT-TYPE> youryou </QUANT-TYPE> ha <VIEW7> <QUANT unit=1 val=30> 30ritobu </QUANT></VIEW7>. </p>

FIG. 13B

ELEMENT METADATA EXTRACTION RESULT EXAMPLE

ELEMENT METADATA ID	SEMANTIC ATTRIBUTE		DESCRIPTION	VIEWPOINT	
	SEMANTIC CLASSIFICATION	DETAILED INFORMATION		PRODUCT CLASSIFICATION	PRODUCT NAME
1-1	PROD_TYPE		bag	PRODUCT CLASSIFICATION	A200
1-2	PROD_NAME		A200	PRODUCT NAME	hujubunda
1-3	QUANT_TYPE			CAPACITY	
1-4	PROD_TYPE			PRODUCT CLASSIFICATION	
1-5	PROD_NAME		A300	PRODUCT NAME	
1-6	QUANT_TYPE			CAPACITY	amarini okit
2-1	PROD_TYPE		bag	PRODUCT CLASSIFICATION	
2-2	PROD_NAME		A200	PRODUCT NAME	
2-3	QUANT_TYPE			CAPACITY	
2-3	QUANT	unit=1, val=20	20 rittoru		
2-4	PROD_TYPE		bag	PRODUCT CLASSIFICATION	
2-5	PROD_NAME		A300	PRODUCT NAME	
2-6	QUANT_TYPE			CAPACITY	
2-6	QUANT	unit=1, val=30	30 rittoru		

FIG. 14A

TOPICAL THING ESTIMATION RULE EXAMPLE

RULE	CONDITION	ESTIMATED TOPICAL THING
1	<DESC[0-9]+><{PROD_TYPE PERSON}><{ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL}><{PROD_TYPE PERSON}></DESC[0-9]+>	TOPICAL THING OF ELEMENT METADATA OF DESCRIPTION \$1:\$1
2	(({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL}) < / {PROD_TYPE PERSON} > < / DESC[0-9] + > "HA" (< VIEW[0-9] + > < {ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL} > < VIEW[0-9] + > "GA" < / DESC[0-9] + > < {ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL} < / DESC[0-9] + >) HOWEVER, CHARACTER STRING IN \$2 AND \$4, IN \$5 AND \$7 SHALL BE IDENTICAL	TOPICAL THING OF ELEMENT METADATA OF VIEWPOINT \$3 AND DESCRIPTION \$6:\$1
3	(({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL}) < / {PROD_TYPE PERSON} > < / DESC[0-9] + > < {PROD_TYPE PERSON} > < {ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL} > < / {PROD_TYPE PERSON} >	TOPICAL THING OF ELEMENT METADATA OF DESCRIPTION \$2:\$4

EXPLANATION OF NOTATION OF RULE
(A|B): ONE OF A AND B

FIG. 14B

TOPICAL THING ESTIMATION RULE COMPONENT DEFINITION EXAMPLE

COMPONENT NAME	DEFINITION
TAG CONFIGURATION CHARACTER STRING	[0-9A-Za-z_]+
ARBITRARY CHARACTER STRING	+

TOPICAL THING ESTIMATION EXAMPLE

FIG. 15

VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		ELEMENT METADATA ID	TOPICAL THING
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION		
PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-1	A200
PRODUCT NAME	A200	PROD_NAME		1-2	A200
CAPACITY	hujubunda	QUANT_TYPE		1-3	A200
PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-4	A300
PRODUCT NAME	A300	PROD_NAME		1-5	A300
CAPACITY	amarini ooki	QUANT_TYPE		1-6	A300
PRODUCT CLASSIFICATION	bag	PROD_TYPE		2-1	A200
PRODUCT NAME	A200	PROD_NAME		2-2	A200
CAPACITY	20 rittoru	QUANT_TYPE		2-3	A200
		QUANT	unit=1, val=20		
PRODUCT CLASSIFICATION	bag	PROD_TYPE		2-4	A300
PRODUCT NAME	A300	PROD_NAME		2-5	A300
CAPACITY	30 rittoru	QUANT_TYPE		2-6	A300
		QUANT	unit=1, val=30		

FIG. 16

INTEGRATION RESULT EXAMPLE

TOPICAL THING ESTIMATION EXAMPLE	VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		ELEMENT METADATA ID
			SEMANTIC CLASSIFICATION	DETAILED INFORMATION	
A200	PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-1 2-1
	PRODUCT NAME	A200	PROD_NAME		1-2 2-2
	CAPACITY	hujubunda	QUANT_TYPE		-
					1-3
			QUANT	unit=1, val=20	2-3
A300	PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-4 2-4
	PRODUCT NAME	A300	PROD_NAME		1-5 2-5
	CAPACITY	amarini ooki'i 30 rittoru	QUANT_TYPE		-
					1-6
			QUANT	unit=1, val=30	2-6

FIG. 17

INTEGRATION RESULT EXAMPLE

TOPICAL THING ESTIMATION EXAMPLE	VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		ELEMENT METADATA ID
			SEMANTIC CLASSIFICATION	DETAILED INFORMATION	
A200	CAPACITY		QUANT_TYPE		-
		hujyubunda			1-3
		20 rittoru	QUANT	unit=l, val=20	2-3

FIG. 18

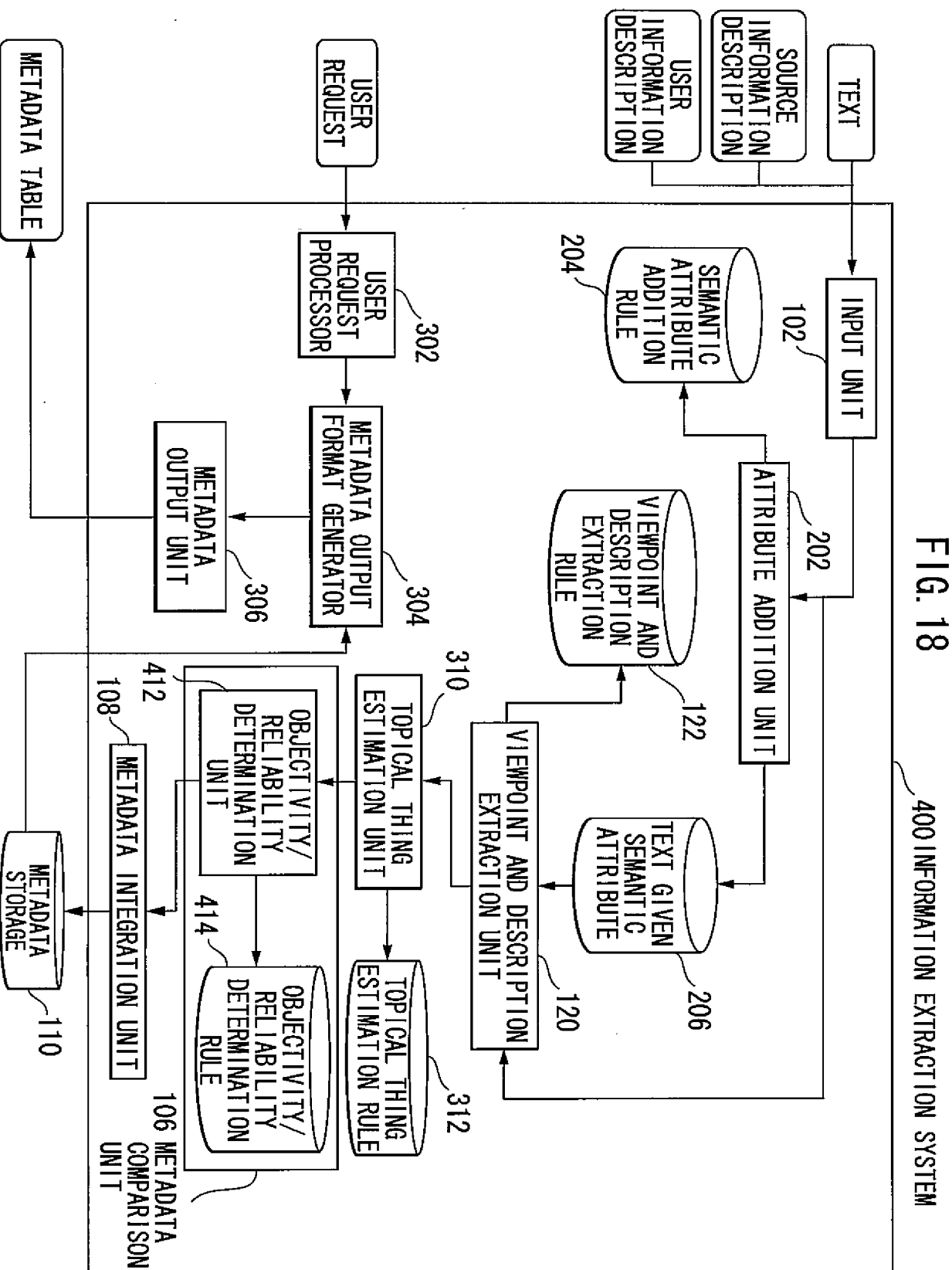


FIG. 19A

SOURCE INFORMATION DESCRIPTION EXAMPLE

SOURCE INFORMATION DESCRIPTION 1	http://www.aaa.co.jp/article1 CREATION DATE:OCT.1,2003
SOURCE INFORMATION DESCRIPTION 2	http://www.xxx.yyy.jp/~zzz CREATION DATE:MAY.1,2003

FIG. 19B

USER INFORMATION DESCRIPTION EXAMPLE

USER INFORMATION DESCRIPTION 1	COMPANY NAME:aaa
USER INFORMATION DESCRIPTION 2	AUTHOR zzz MALE IN TWENTIES

FIG. 19C

EXAMPLE OF SOURCE INFORMATION DESCRIPTION WITH SEMANTIC ATTRIBUTE

SOURCE INFORMATION DESCRIPTION 1	<URLtype=CORPORATE WEB PAGE>http://www.aaa.co.jp/article1</URL> <DATE value=2003:10:01>OCT.1,2003</DATE>
----------------------------------	---

FIG. 19D

EXAMPLE OF USER INFORMATION DESCRIPTION WITH SEMANTIC ATTRIBUTE

USER INFORMATION DESCRIPTION 1	AUTHOR<AUTHOR>zzz</AUTHOR>.<AGEvalue=20:29>TWENTIES </AGE><GENDER type=M>MALE</GENDER>.
--------------------------------	--

FIG. 20A

SOURCE SEMANTIC ATTRIBUTE ADDITION RULE EXAMPLE

RULE	PATTERN	SEMANTIC ATTRIBUTE	
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION
1	(http://.*\$.cc\$jp.*)	URL (WEB PAGE)	type=company
2	(([4-DIGIT NUMERIC CHARACTER})YEAR ([1 TO 2-DIGIT NUMERIC CHARACTER})MONTH ([1 TO 2-DIGIT NUMERIC CHARACTER}))	DATE	value=\$1:\$2:\$3 HOWEVER, PUT 0 BEFORE WHEN \$2 AND \$3 ARE ONE DIGIT

¥:“.” (PERIOD)

FIG. 20B

USER SEMANTIC ATTRIBUTE ADDITION RULE EXAMPLE

RULE	PATTERN	SEMANTIC ATTRIBUTE	
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION
1	AUTHOR[.]*([^.]+)	AUTHOR	
2	(([1-DIGIT NUMERIC CHARACTER})AGE OF 0	AGE	value=(\$1*10+1) : (\$1*10+9)
3	MALE	GENDER	value=M

[^.] : CHARACTER UNMATCHED WITH CHARACTER IN TABLE

FIG. 21A

SOURCE VIEWPOINT/DESCRIPTION EXTRACTION RULE EXAMPLE

RULE	PATTERN	VIEWPOINT	DESCRIPTION
1	<URL type=CORPORATE WEB PAGE>({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL})</URL>	SOURCE OF TEXT	\$1
2	(CREATION DATE):<DATE>({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL})</DATE>	\$1	\$2

FIG. 21B

USER VIEWPOINT/DESCRIPTION EXTRACTION RULE EXAMPLE

RULE	PATTERN	VIEWPOINT	DESCRIPTION
1	<AUTHOR>({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL})</AUTHOR>	AUTHOR	\$1
2	<AGEvalue=(20:29)>({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL})</AGE>	AGE	\$1
3	<GENDER type=M>({ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL})</GENDER>	GENDER	MALE

FIG. 22A

SOURCE METADATA EXTRACTION RESULT EXAMPLE

VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		SOURCE METADATA ID
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION	
SOURCE OF TEXT	http://www.aaa.co.jp/article1	URL (WEB PAGE)	type=company	1-S1
CLASSIFICATION OF TEXT	CORPORATE WEB PAGE (http://www.aaa.co.jp/article1)	URL (WEB PAGE)	type=company	1-S2
CREATION DATE	OCT. 1, 2003	DATE	value=2003:10:01	1-S3

FIG. 22B

USER METADATA EXTRACTION RESULT EXAMPLE

VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		USER METADATA ID
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION	
AUTHOR	zzz	AUTHOR		2-U1
AGE	20-29	AGE	value=20:29	2-U2
GENDER	MALE	GENDER	value=M	2-U3

FIG. 23
OBJECTIVITY/RELIABILITY DETERMINATION RULE EXAMPLE

RULE	CONDITION				OBJECTIVITY	RELIABILITY
	ELEMENT METADATA OF TEXT		SOURCE METADATA			
	VIEWPOINT	SEMANTIC CLASSIFICATION OF DESCRIPTION	VIEWPOINT	DESCRIPTION		
1	ORGANIZATION NAME				1	1
2	PRODUCT CLASSIFICATION				1	1
3	PRODUCT NAME				1	1
4	USAGE	USAGE	CLASSIFICATION OF TEXT	CORPORATE WEB PAGE/NEWSPAPER	1	1
5	USAGE	USAGE	CLASSIFICATION OF TEXT	PERSONAL WEB PAGE	0	0.5
6	CAPACITY	QUANT	CLASSIFICATION OF TEXT	CORPORATE WEB PAGE/NEWSPAPER	1	1
7	CAPACITY	QUANT	CLASSIFICATION OF TEXT	PERSONAL WEB PAGE	1	0.9
8	CAPACITY	NONE OR EXCEPT QUANT			0	0.2
9	CAPACITY	NONE OR EXCEPT QUANT	CLASSIFICATION OF TEXT	CORPORATE WEB PAGE/NEWSPAPER	0	0.5
10	CAPACITY	NONE OR EXCEPT QUANT	CLASSIFICATION OF TEXT	PERSONAL WEB PAGE	0	0.5
					ENDING OF SENTENCE IS {INDEFINITE EXPRESSION }	
					ENDING OF SENTENCE IS {INDEFINITE EXPRESSION }	
					ENDING OF SENTENCE IS {INDEFINITE EXPRESSION }	

OBJECTIVITY/RELIABILITY DETERMINATION RULE COMPONENT DEFINITION EXAMPLE
INDEFINITE EXPRESSION 1: THINK, SEEM, CONSIDERED, MAY, LIKELY

FIG. 24A

TEXT EXAMPLES

TEXT 1

Bag A200 ha youyrnou ga 20 rittoru to ookil.
 bag A200 capacity 20 liters
 (The capacity of the bag A200 is as large as 20 liters.)

TEXT 2

Bag A200 no youryou ha kaigai syuttyouyou ni ha hujubunda
 bag A200 capacity for overseas business trip insufficient
 to omou.
 think
 (I think the capacity of bag A200 is insufficient for overseas
 business trip.)

TEXT 3

Bag A200 no youryou ha kokunai syuttyouyou ni ha amarini
 bag A200 capacity for domestic business trip too
 ookil.
 large
 (The capacity of bag A200 is too large for domestic business
 trip.)

TEXT 4

Bag A200 no youryou ha kokunai syuttyouyou ni ha
 bag A200 capacity for domestic business trip
 jubunda.
 sufficient
 (The capacity of bag A200 is sufficient for domestic business
 trip.)

FIG. 24B

EXAMPLES OF TEXT GIVEN SEMANTIC ATTRIBUTE

TEXT 1

```
<ORGANIZATION type=company> A sha</ORGANIZATION> no<PROD_TYPE>
bag</PROD_TYPE><PROD_NAME>A200</PROD_NAME> ha<QUANT_TYPE>
ga<QUANT unit=1, val=20>20 ritto mu</QUANT> to ookii.
```

TEXT 2

```
<PROD_TYPE> bag</PROD_TYPE><PROD_NAME>A200</PROD_NAME> no<QUA
NT_TYPE>youryou</QUANT_TYPE> ha<USAGE>kaigai syuttyouyou</USA
GE>ni ha hujubunda to omou.
```

TEXT 3

```
<PROD_TYPE> bag</PROD_TYPE><PROD_NAME>A200</PROD_NAME> no<QUAN
T_TYPE>youryou</QUANT_TYPE> ha<USAGE>kokunai syuttyouyou</USAGE>
ni ha amari ni ookii.
```

TEXT 4

```
<PROD_TYPE> bag</PROD_TYPE><PROD_NAME>A200</PROD_NAME> no<QUANT_
TYPE>youryou</QUANT_TYPE> ha<USAGE>kokunai syuttyouyou</USAGE>
ni ha jubunda.
```

FIG. 25A

VIEWPOINT/DESCRIPTION EXTRACTION RULE EXAMPLE

RULE	PATTERN/VIEW	VIEWPOINT	DESCRIPTION
1	<<QUANT_TYPE><[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]><[/QUANT_TYPE>[9a OR ha]<QUANT><[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]><[/QUANT]>to([KANJI/HIRAGANA STRING 1]) [ADJECTIVE ENDING 1])	\$1	\$2 \$3
2	<QUANT_TYPE><[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]><[/QUANT_TYPE>[9a OR ha]<USAGE>(FOR [ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]><[/USGE>[n1toSte]) [haOR mo] ([KANJI/HIRAGANA STRING 1]) [ADJECTIVE ENDING 1])	\$1	\$2&&\$3
3	<QUANT_TYPE><[ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]><[/QUANT_TYPE>[9a OR ha] ([KANJI/HIRAGANA STRING 1]) [ADJECTIVE ENDING 1])	\$1	\$2
4	{[ARBITRARY CHARACTER STRING EXCEPT TAG TRAILING SYMBOL]}* <([SEMANTIC ATTRIBUTE])> ([ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL]) <[/SEMANTIC ATTRIBUTE 1]>	ARIAS OF SEMANTIC ATTRIBUTE OF \$1	\$2
5	{TRAILING TAG}<([SEMANTIC ATTRIBUTE 1])><([ARBITRARY CHARACTER STRING EXCEPT TAG START SYMBOL])><[/SEMANTIC ATTRIBUTE 1]>	ARIAS OF SEMANTIC ATTRIBUTE OF \$1	\$2

FIG. 25B

VIEWPOINT/DESCRIPTION EXTRACTION RULE COMPONENT DEFINITION EXAMPLE

COMPONENT NAME	DEFINITION
ATTRIBUTE CHARACTER EXCEPT TAG END SYMBOL	[^>]
END TAG	<[/^>]+>

FIG. 26

ELEMENT METADATA EXTRACTION RESULT EXAMPLE

VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE		ELEMENT METADATA ID	TOPICAL THING
		SEMANTIC CLASSIFICATION	DETAILED INFORMATION		
PRODUCT CLASSIFICATION	bag	PROD_TYPE		1-1	A-200
PRODUCT NAME	A200	PROD_NAME		1-2	A-200
CAPACITY	20 rittoru ookii	QUANT_TYPE		-	
		QUANT	unit=1, val=20	1-3a	A-200
		-		1-3b	
		PROD_TYPE		2-1	A-200
PRODUCT CLASSIFICATION	bag	PROD_TYPE		2-1	A-200
PRODUCT NAME	A200	PROD_NAME		2-2	A-200
CAPACITY	kaigaisyuttyouyou hujubun.da	QUANT_TYPE			
		USAGE		2-3	A-200
		-			
		PROD_TYPE		2-4	A-200
PRODUCT CLASSIFICATION	bag	PROD_TYPE		3-1	A-200
PRODUCT NAME	A200	PROD_NAME		3-2	A-200
CAPACITY	kokunaisyuttyouyou amarinijookii	QUANT_TYPE			
		USAGE		3-3	A-200
		-			
		PROD_TYPE		3-4	A-200
PRODUCT CLASSIFICATION	bag	PROD_TYPE		4-1	A-200
PRODUCT NAME	A200	PROD_NAME		4-2	A-200
CAPACITY	kokunaisyuttyouyou juubun.da	QUANT_TYPE			
		USAGE		4-3	A-200
		-			
USAGE	kokunaisyuttyouyou	USAGE		4-4	A-200

METADATA INTEGRATION RESULT EXAMPLE

FIG. 28

ELEMENT METADATA							SOURCE METADATA			USER METADATA							
TOPICAL THING	VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE	ELEMENT METADATA ID	OBJECTIVITY	RELIABILITY	VIEW-POINT	DESCRIPTION	SOURCE METADATA ID	VIEW-POINT	DESCRIPTION	USER METADATA ID					
A200	PRODUCT CLASSIFICATION	bag	PROD_TYPE	1-1	1.0	1.0	CLASSIFICATION OF TEXT	COMPANY WEB PAGE	1-S2	GENDER	-	-					
				2-1					2-S2		MALE	2-U3					
				3-1					3-S2		FEMALE	3-U3					
				4-1					4-S2		MALE	4-U3					
	PRODUCT NAME	A200	PROD_NAME	1-2	1.0	1.0		COMPANY WEB PAGE	1-S2		-	-					
				2-2					2-S2				MALE	2-U3			
				3-2					3-S2				FEMALE	3-U3			
				4-2					4-S2				MALE	4-U3			
	CAPACITY		QUANT_TYPE	-					COMPANY WEB PAGE		1-S2		-	-			
				20 rittoru	QUANT	1-3a					1.0				1.0		
				ookii	-	1-3b					0				0.5		
				kai9aisyuttuyouyou	USAGE	2-3					0				0.2		
				hujubun.da	-												
				kokunaisyuttuyouyou	USAGE	3-3	0		0.3								
				amariniooki	-												
				kokunaisyuttuyouyou	USAGE	4-3	0		0.3								
				jubun.da	-												
				kai9aisyuttuyouyou	USAGE	2-4											
				3-3	0	0.5											
				4-4													
				USAGE	kokunaisyuttuyouyou	USAGE					PERSONAL WEB PAGE				2-S2	MALE	2-U3
							3-S2		3-U3								
							4-S2		4-U3								
							4-U3										

METADATA TABLE

FIG. 29

ELEMENT METADATA							SOURCE METADATA			USER METADATA		
TOPICAL THING	VIEWPOINT	DESCRIPTION	SEMANTIC ATTRIBUTE	ELEMENT METADATA ID	OBJECTIVITY	RELIABILITY	VIEW-POINT	DESCRIPTION	SOURCE METADATA ID	VIEW-POINT	DESCRIPTION	USER METADATA ID
A200	CAPACITY	kaigaissyuttyouyou	USAGE	-	-	-	CLASSIFICATION OF TEXT	PERSONAL WEB PAGE		GENDER	-	
		hujubun da	-	2-3	0	0.2			2-S2		MALE	2-U3
		kokunaissyuttyouyou	USAGE	3-3	0	0.3			3-S2		FEMALE	3-U3
		amarini oaki	-	4-3	0	0.3						
		kokunaissyuttyouyou	USAGE									
	jubun da	-	4-3	0	0.3	4-S2		MALE	4-U3			
	USAGE	kaigaissyuttyouyou	USAGE	2-4	0	0.5		2-S2	MALE		2-U3	
		kokunaissyuttyouyou	USAGE	3-4								
				4-4								
				4-4								
		kokunaissyuttyouyou	USAGE	4-4								
		kokunaissyuttyouyou	USAGE	4-4								
		kokunaissyuttyouyou	USAGE	4-4								
		kokunaissyuttyouyou	USAGE	4-4								
		kokunaissyuttyouyou	USAGE	4-4								
kokunaissyuttyouyou		USAGE	4-4									